

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

YOR920030540US1

100
2

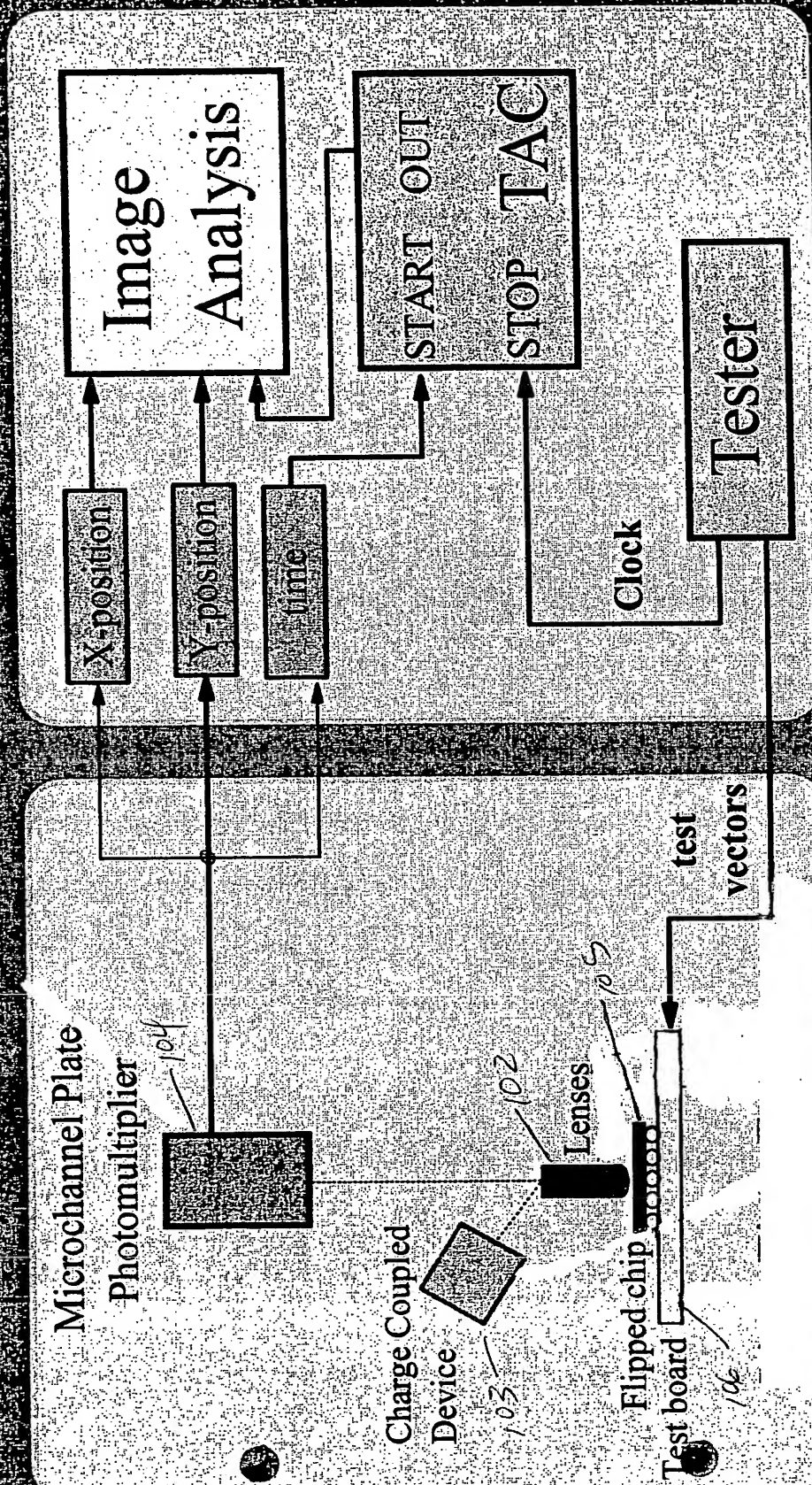


FIGURE 1

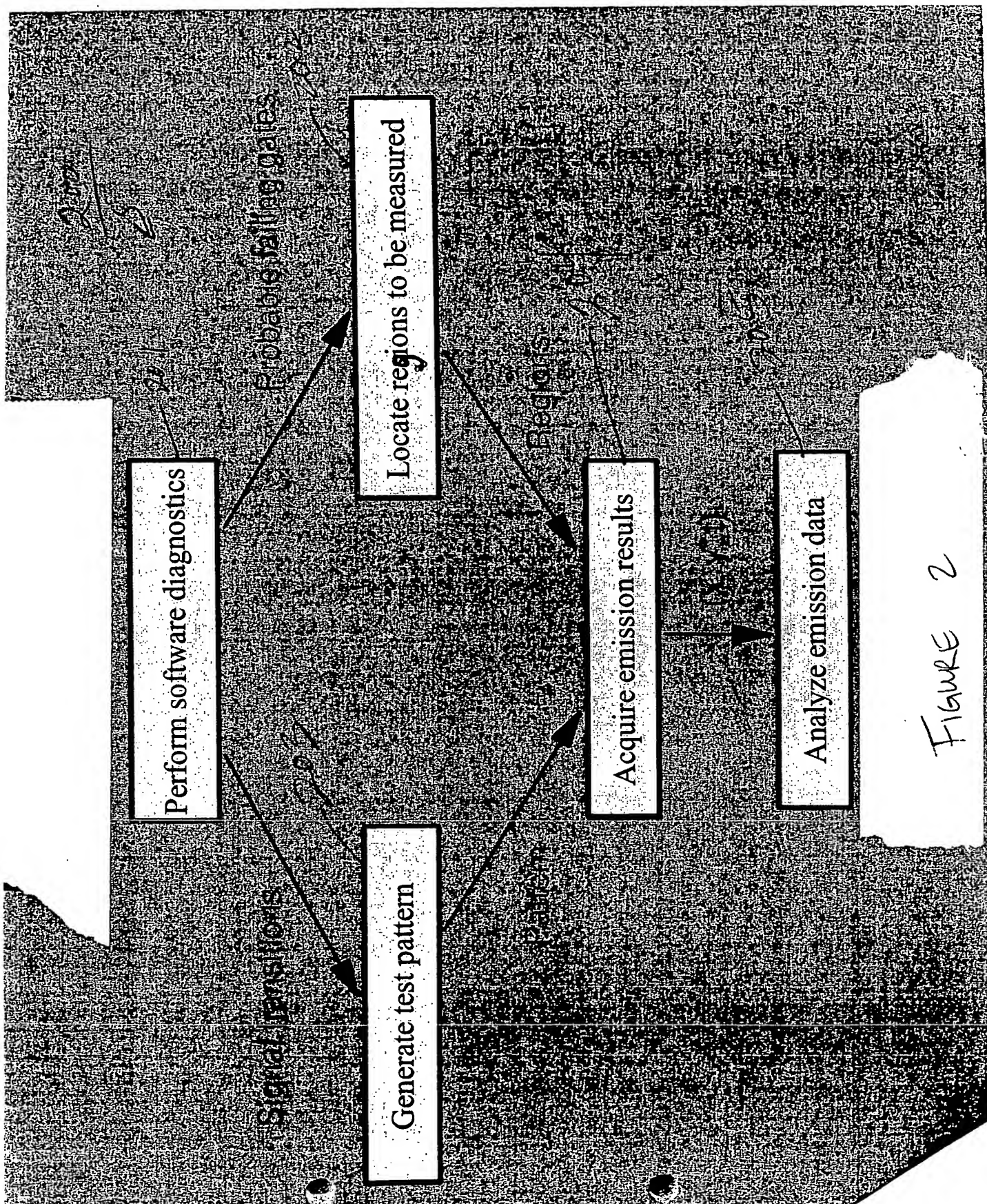


FIGURE 2



Figure 3



FIGURE 4

500
Σ

Modulo-2 add & sub truth table	
+/-	
0	1
1	0

FIGURE 5

600
Σ

604

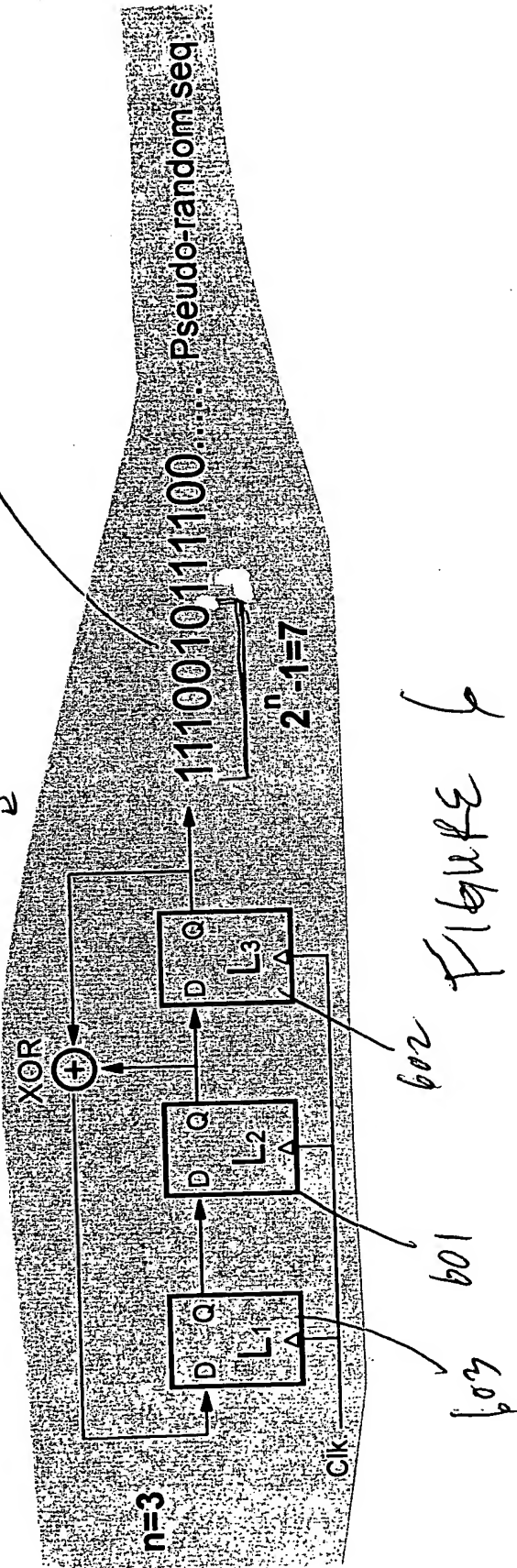


FIGURE 6

S ₀	1	1	1
S ₁	0	1	1
S ₂	0	0	1
S ₃	1	0	0
S ₄	0	1	0
S ₅	1	0	1
S ₆	1	1	0
S ₀	1	1	1

702

700

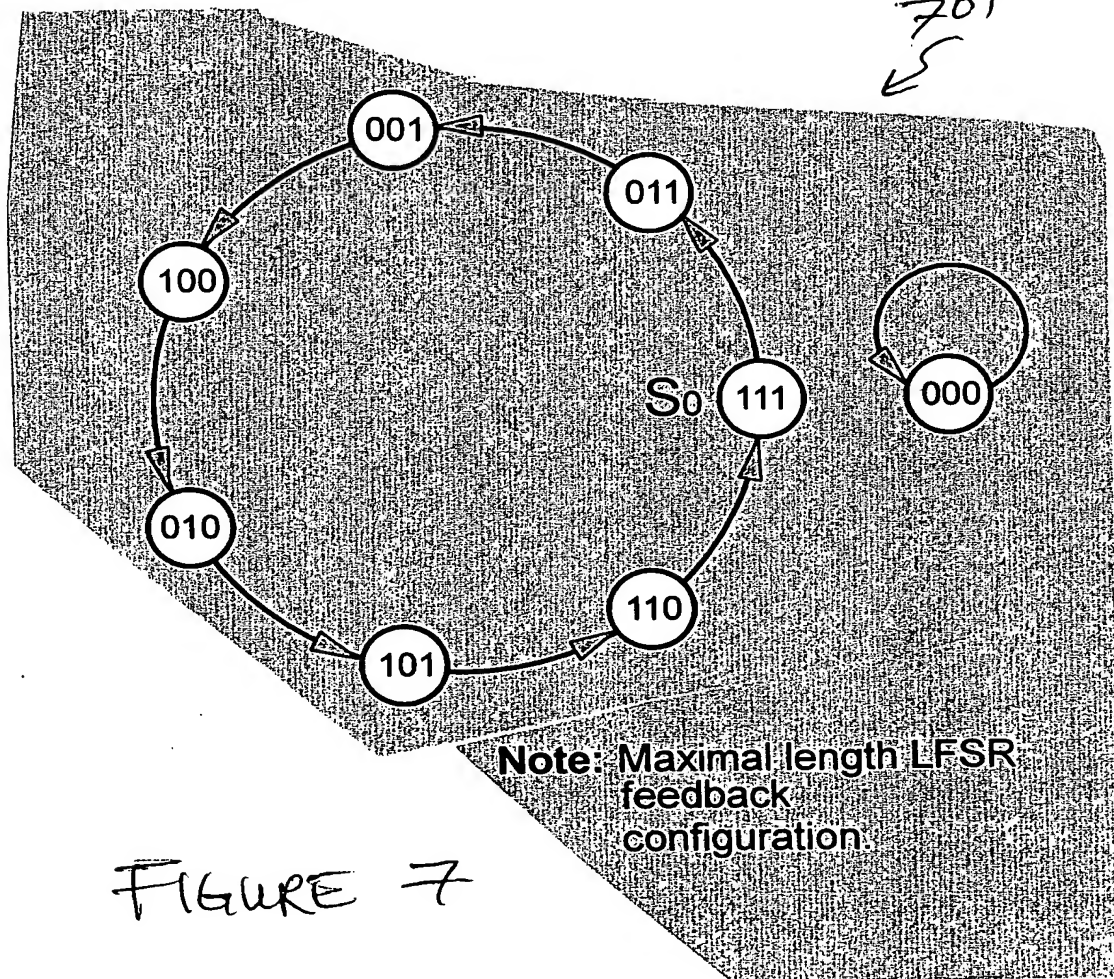


FIGURE 7

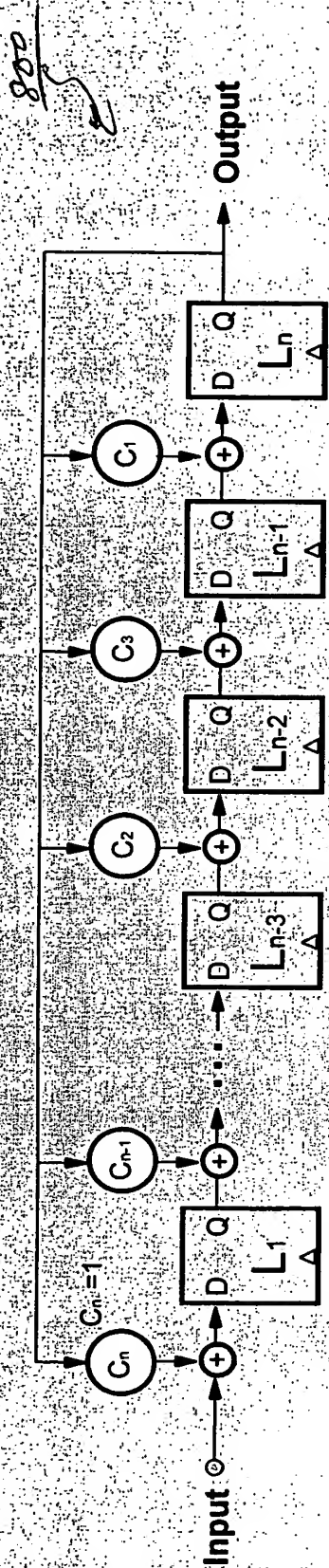


FIGURE 8

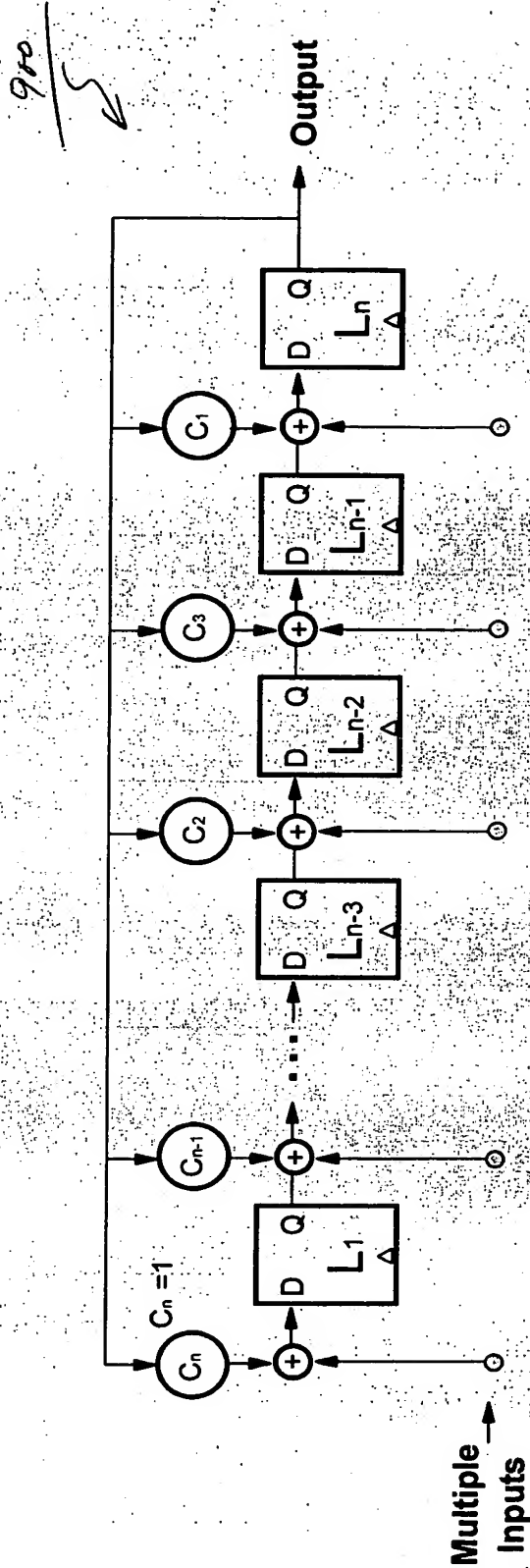
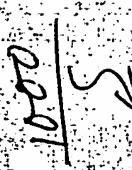


FIGURE 9



($n=5$, $2^n-1=31$ states)

[illegible]

The diagram illustrates a sequence of five layers, labeled L_1 through L_5 from top to bottom. Each layer contains a horizontal row of 16 binary digits (0s and 1s). A dashed arrow points from the bottom of the L_5 layer back to the top of the L_1 layer, suggesting a feedback or iterative process.

Layer	Binary Sequence
L_1	1 1 0 0 1 1 0 1 0 0 1 0 0 0 0 1 0 1 1 1 0 1 1 0 0 0 1 1 1
L_2	1 1 0 0 1 1 1 0 1 0 1 0 0 0 0 1 0 1 0 1 1 1 0 1 1 0 0 0 1 1 1
L_3	1 1 1 1 1 1 0 0 1 1 0 1 0 0 1 0 0 0 0 0 1 0 1 0 1 1 1 0 1 1 0 0 0
L_4	1 1 1 1 1 0 0 1 1 1 0 1 0 0 1 0 0 0 0 0 1 0 1 0 1 1 1 0 1 1 0 0 0 1
L_5	1 1 1 0 0 1 1 1 0 1 0 0 1 0 0 0 0 0 0 1 0 1 0 1 1 1 1 0 1 1 0 0 0 1 1

$$\ln_1 \& \ln_2 = 0$$
 $\ln_1 \& \ln_2 < 0$

Figure 10

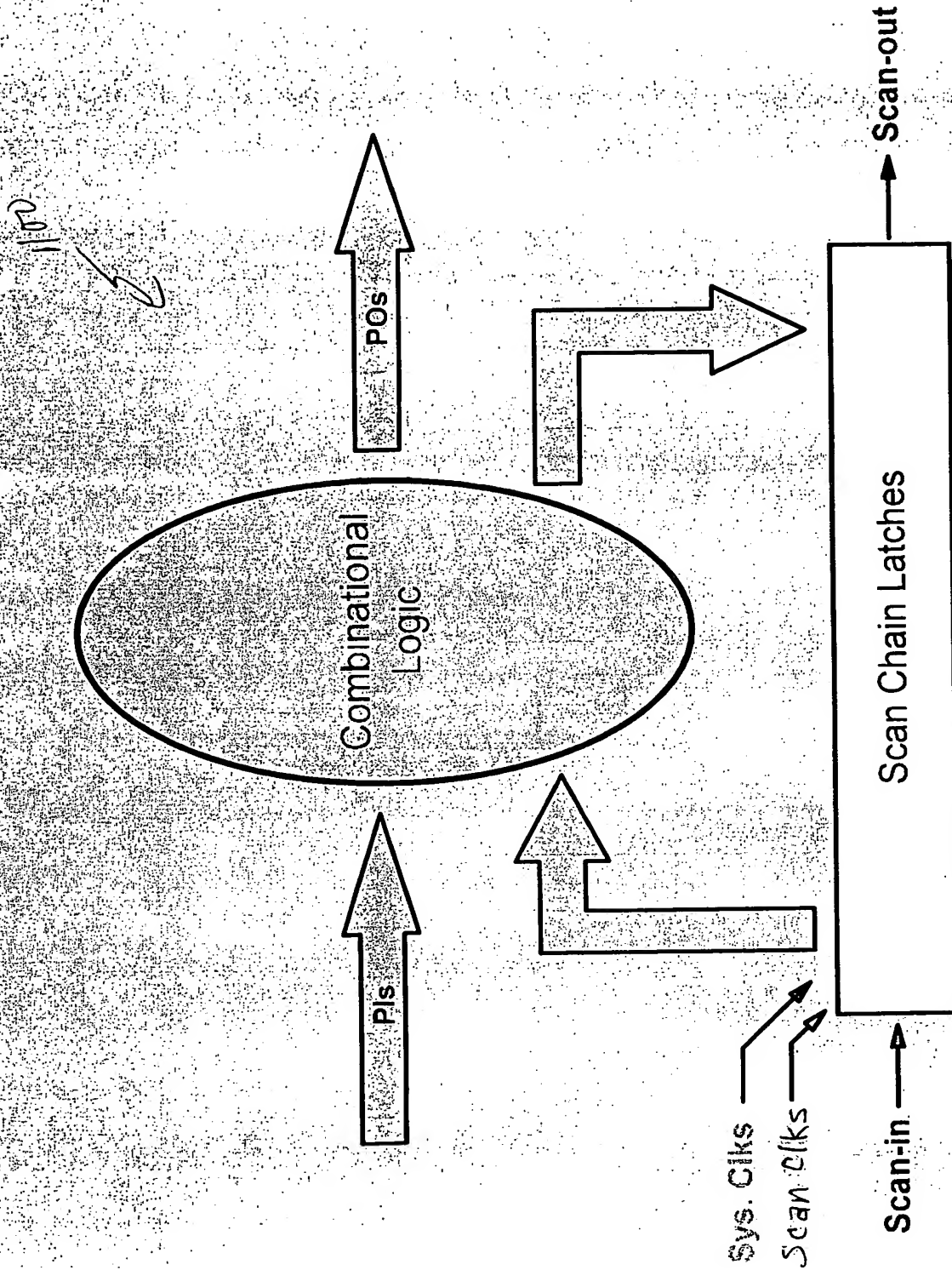


FIGURE 11

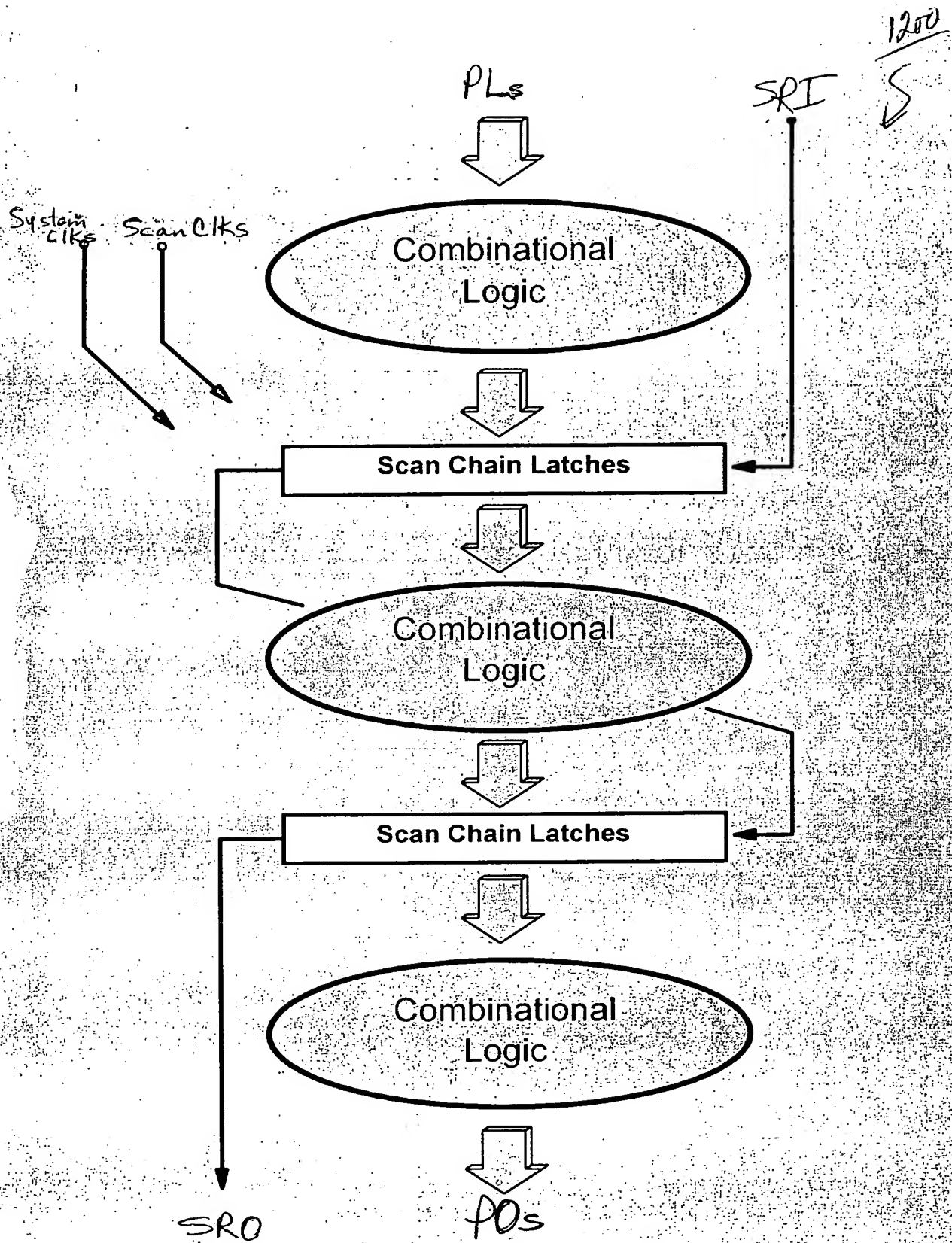


FIGURE 12

1300

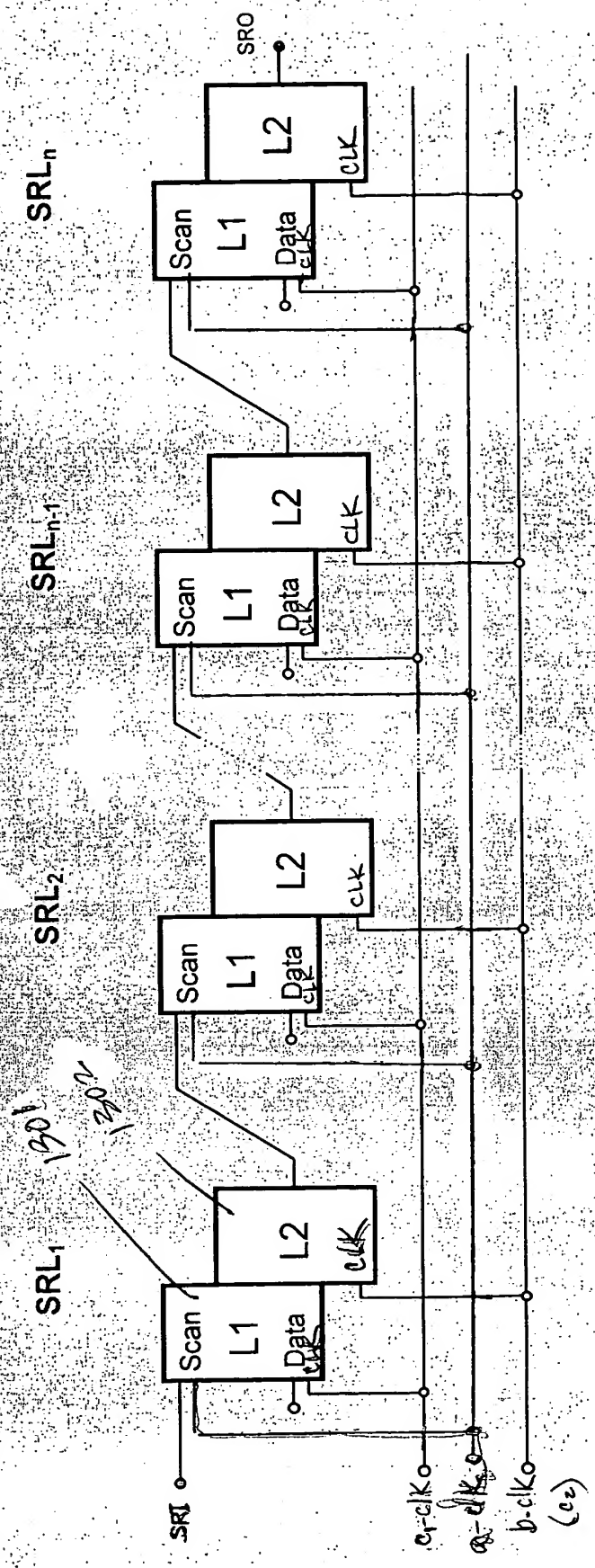


Figure 13

X

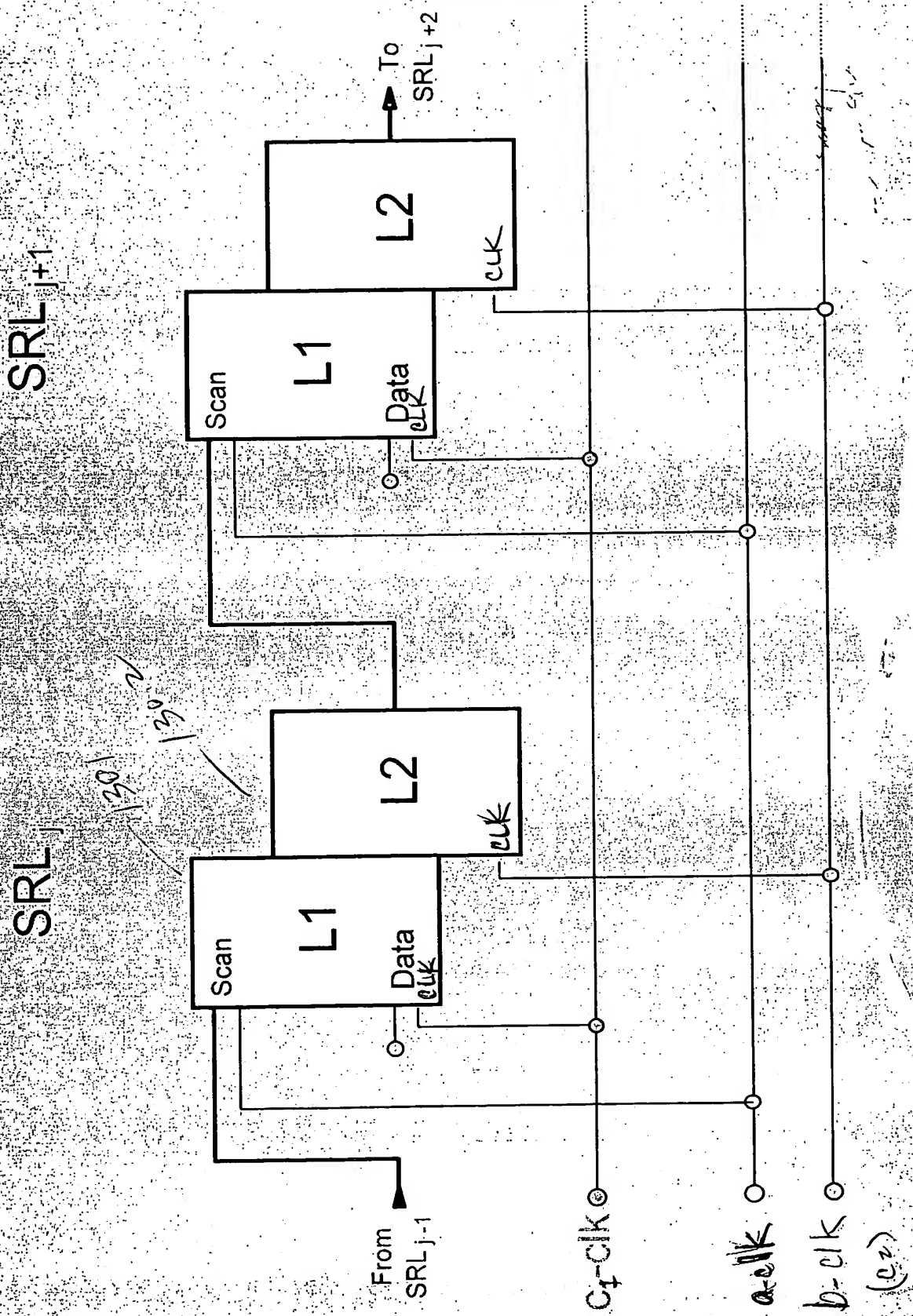


FIGURE 14

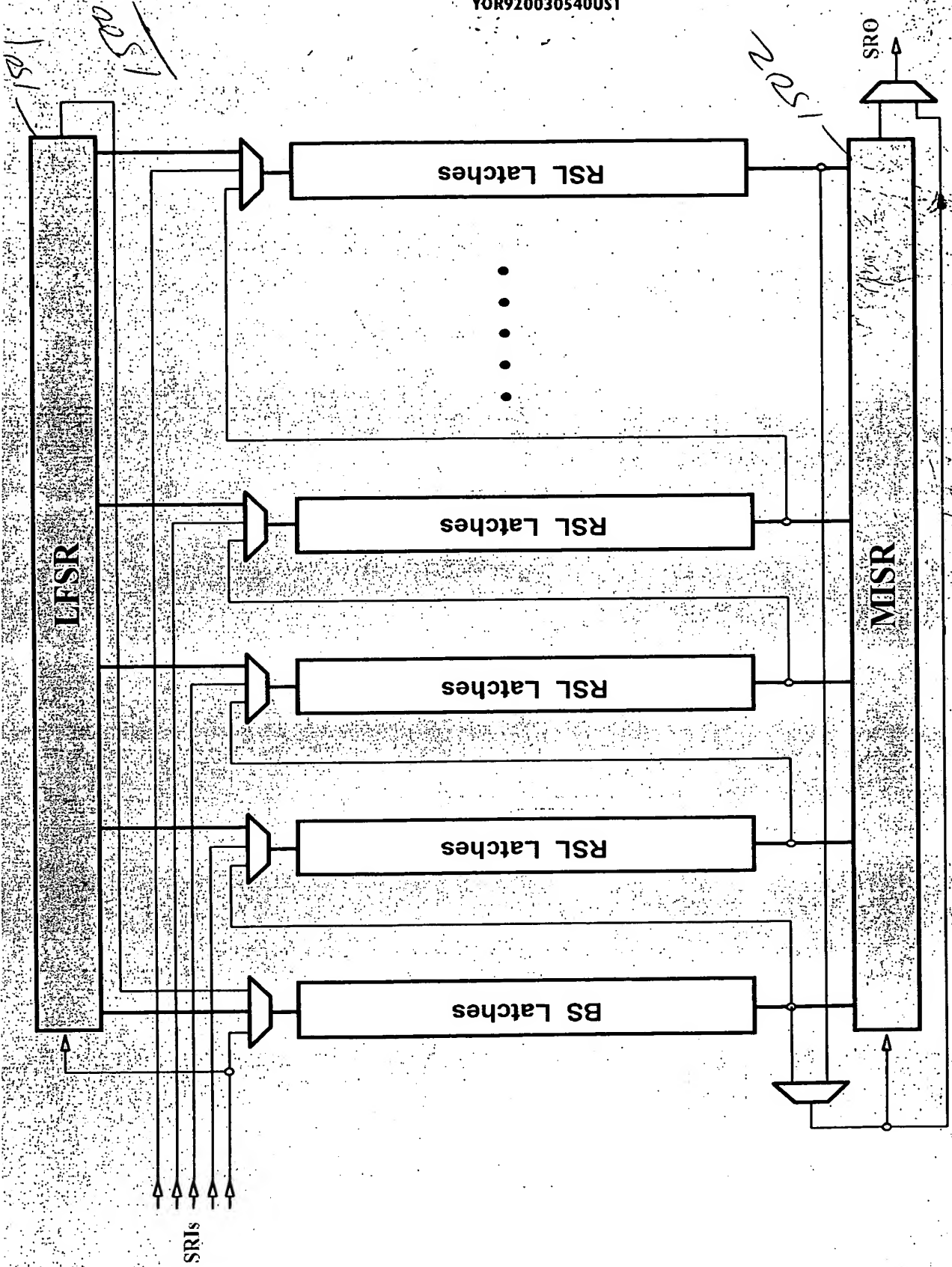


Figure 15

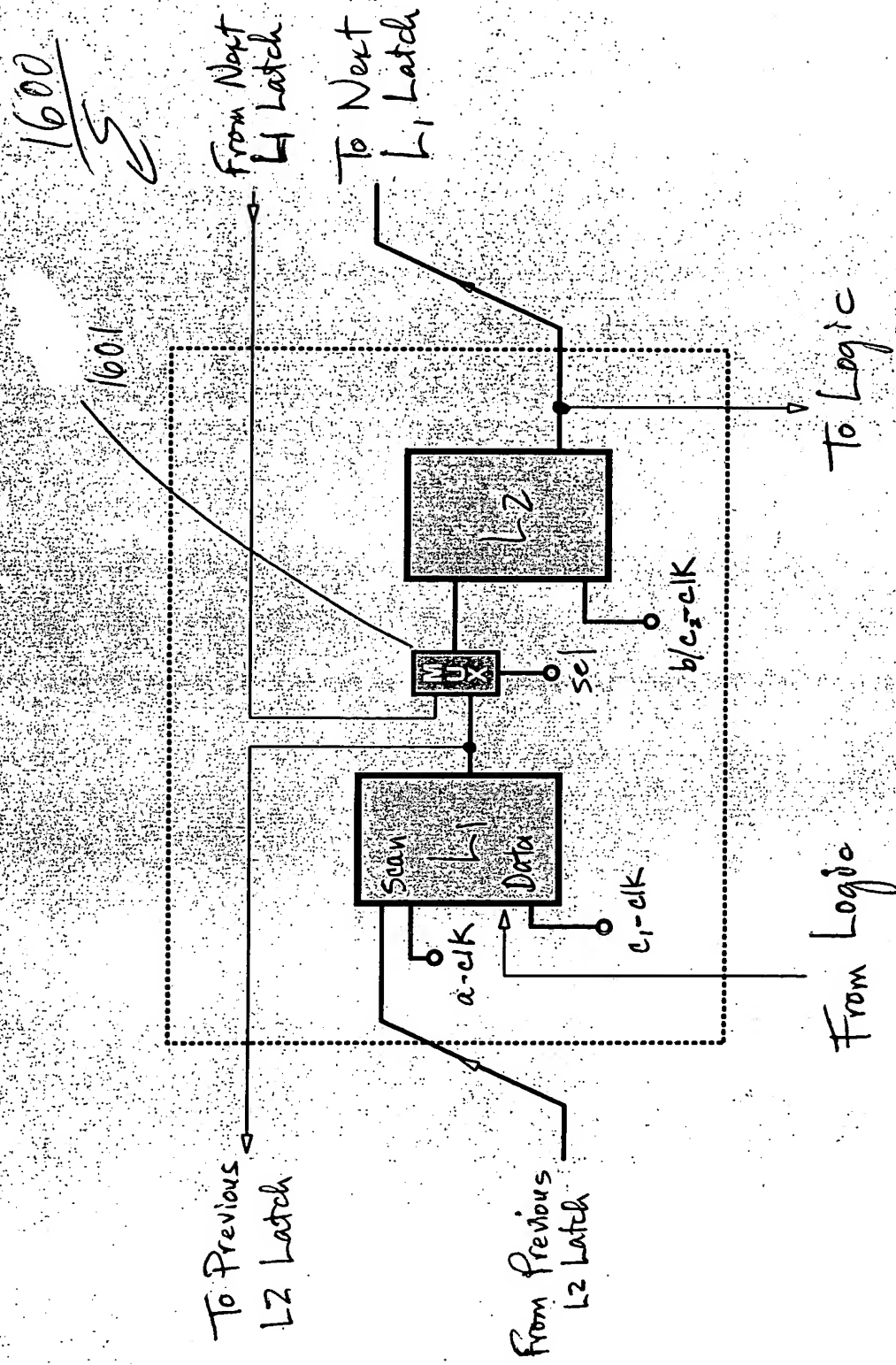


FIGURE 16

1700
Σ

1401 1302

SRLj / SRLj+1

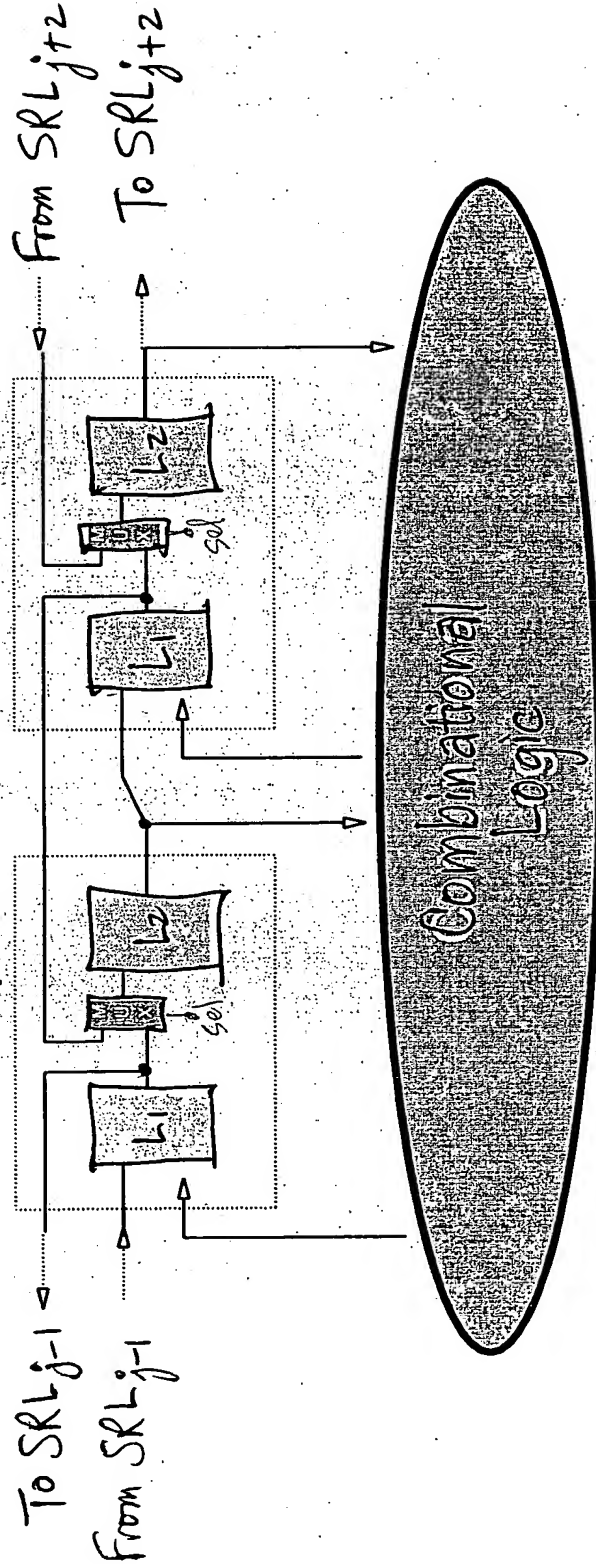


FIGURE 17

1800

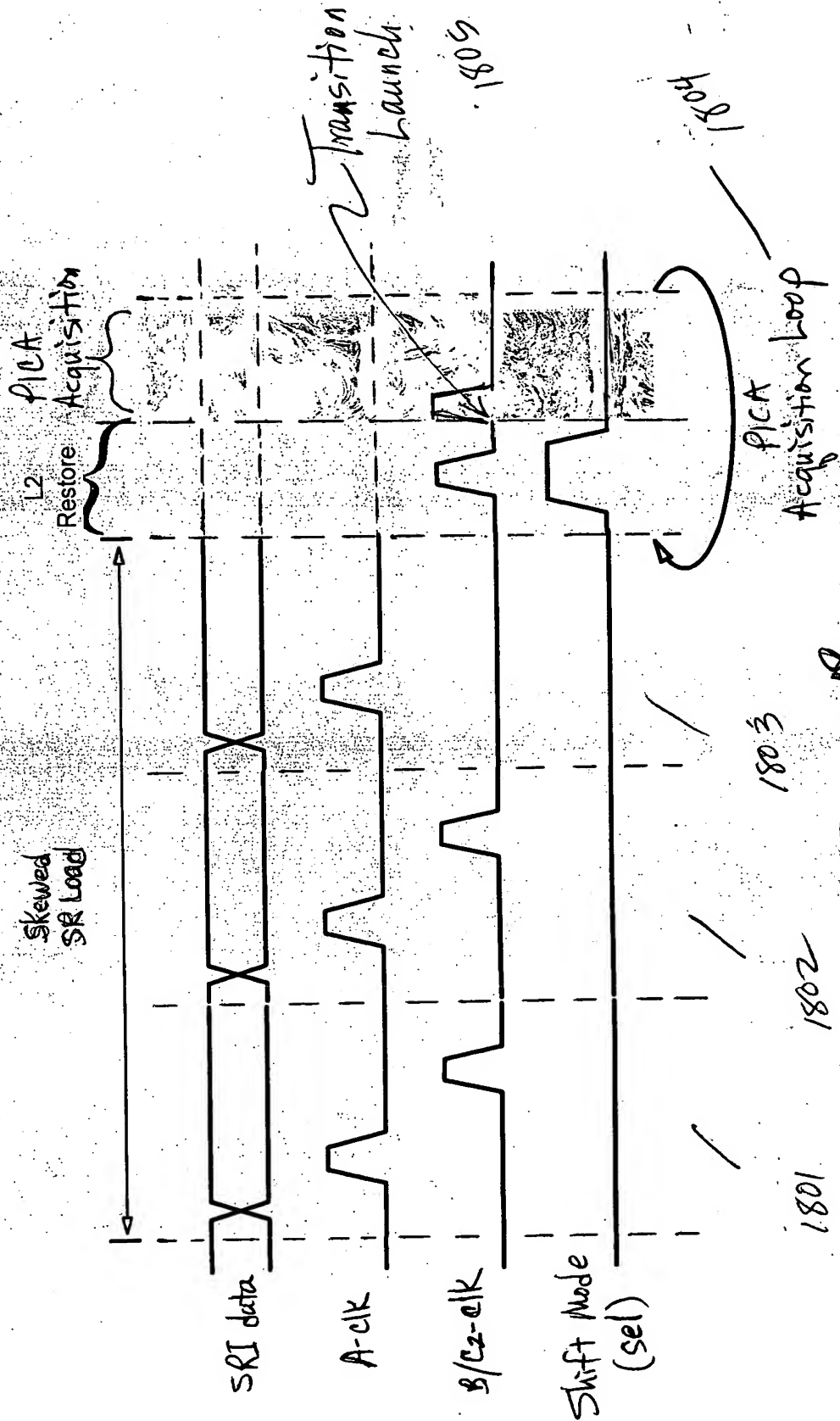


FIGURE 18

2

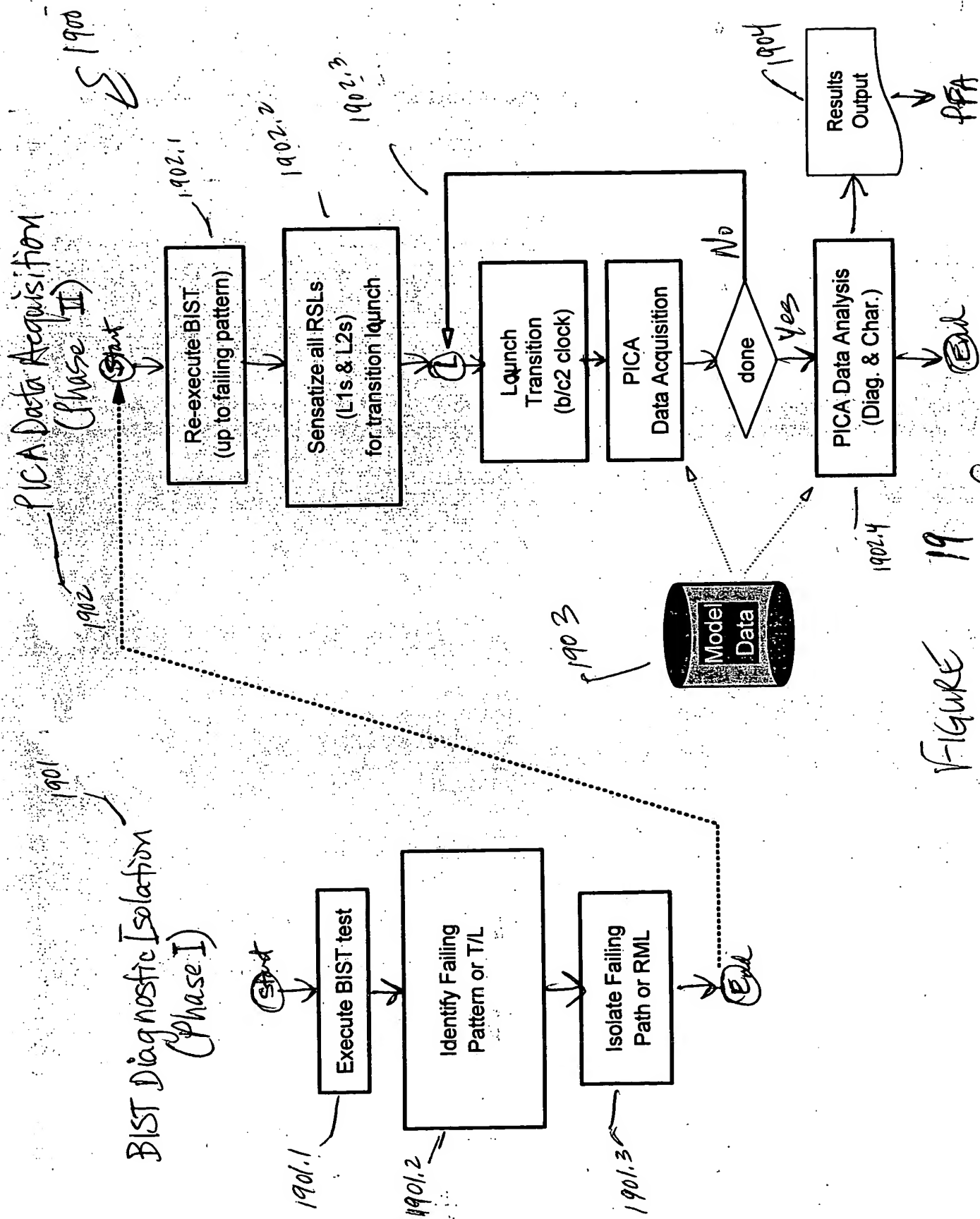


FIGURE 19

2000

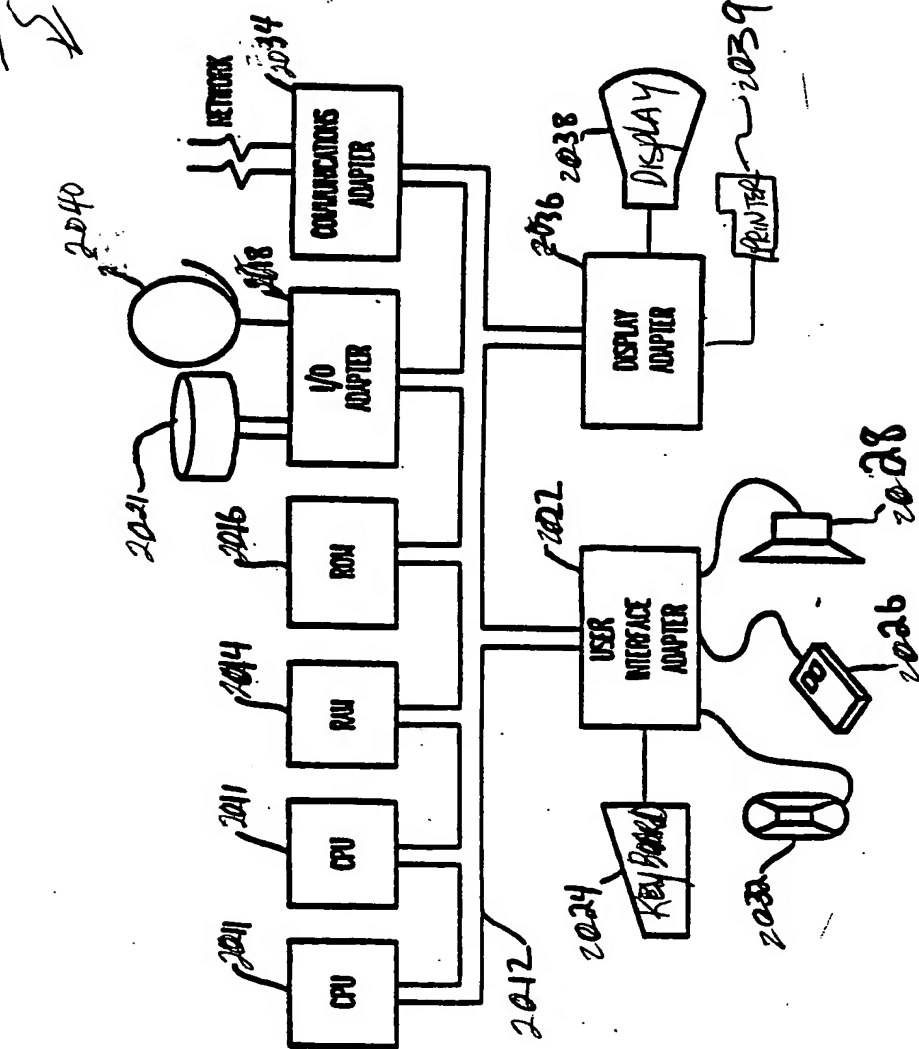


FIGURE 20

2100

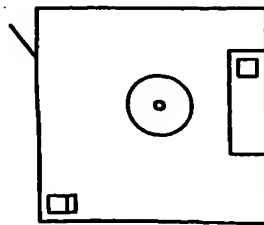


FIGURE 21